



# Chambers's Journal

## SIXTH SERIES.

### A STABLE RUPEE.

**T**HE long-continued campaign on behalf of silver waged with varying fortune in Europe and America during the last twenty-five years, issuing in Royal Commissions and International Conferences without end, has had only an academic interest for our own country. In the United States a Presidential election has turned upon the question, and in many Continental countries it has been treated as a matter of vital moment. Great Britain has remained indifferent; but her abstention from active participation in the struggle has, all the same, had a determining influence adverse to silver. It was plainly impossible to carry the matter to what many considered the right conclusion so long as the chief financial centre of the world held aloof. That was perceived very clearly by those interested, and many a fierce denunciation have we earned for the supposed selfishness of our attitude. Nor have these reproaches come only from foreign sources: a strong silver party, 'numbering good intellects' in the City and in Parliament, has fought hard to prove that the rehabilitation of the white metal, the restoration of its damaged prestige in the currencies of the world, is both just and practicable. For a long time the British public have been bombarded with speeches, books, and pamphlets on its behalf, though the artillery now shows signs of slackening. Cabinet Ministers have traced commercial troubles and the misery of the poor to the gold standard. Merchants and students, bankers and editors, professors and politicians, have stood shoulder to shoulder in the ranks of the bimetallist army. Excitement has been considerable, all the hotter because confined to a few, for upon the whole the effect on the great body of opinion in the country has been imperceptible. This has not been due to any careful and thorough refutation of the pro-silver arguments, but, first of all, to a strong feeling that in the question of the standard of value it may be best to leave well alone; and,

secondly, to a clear view of some important advantages Great Britain reaps as a creditor country to which interest on debts incurred in gold must be paid annually to an enormous amount. If any other consideration has weighed heavily in the matter, it has been the fact that countries which have upheld silver as long as they could, have not found it a paying policy.

Only in one direction has the silver question touched us closely enough to be troublesome. Our greatest dependency, India, has had for long a currency of silver monometallism, and many interests, private, commercial, and national, have been severely affected by the steady decline in the exchange value of the rupee. To mention one point only, perhaps the smallest and most remediable of all, every one has heard the bitter complaints of those employed in India, either in commerce or in the public service, whose salaries stated in rupees have shown a lamentable shrinking when translated into British money. The same drawback applies, of course, to investments bearing a fixed interest in rupees. While in one way, it may be admitted, trade does not suffer after an exactly similar fashion, seeing it can safeguard itself against a possible fall, the uncertainty of exchange destroys the confidence which is the life of commercial enterprise. A consideration of at least equal importance is, that the Indian Government, which has vast obligations to meet in London, and must raise its taxation in rupees, suffers enormous losses by their decline in value; and, to make these good, the people of India are called upon to bear a heavier load—heavier nominally, and, until a long process of adjustment has been accomplished, heavier in reality.

That there are difficulties of a serious kind arising out of this condition of things every one admits; but controversy has long raged round the questions whether there are not great compensations, and whether any adequate remedy can be found in legislation. It has been argued that the problem should be left to settle itself by the gradual adjustment of prices which must

sooner or later arrive, and that the export trade of India is not only not injured but actually advantaged by a falling rupee. There has been, moreover, this undoubted anomaly in the case, that, while the gold value of the rupee declined so fast, there was either no fall in its purchasing power in India or one so gradual as to be hardly perceptible. On these grounds a stout opposition was offered on the part of many to proposals designed to restore its former relative value to the silver coin. Wages in India, the main element of cost in manufacture, being reckoned in rupees, production was constantly being cheapened, and under this encouragement the exports of India were rapidly growing. It is not unnatural, therefore, that any interference with the process met with resistance. A point was reached, however, in the decline of silver when it seemed necessary to the bimetallist countries of Europe to cease the free coinage of it; and when this occurred India was left in a dangerous situation that urgently called for action. How great has been the change in the gold value of the rupee is manifest from the following table, which exhibits the unchecked fall till 1897 in the average rate per rupee paid in London for the India Council's bills on India:

1872-73.....22 75d.	1894-95.....13 101d.
1877-78.....20 791d.	1895-96.....13 638d.
1882-83.....19 525d.	1896-97.....14 451d.
1887-88.....16 898d.	1897-98.....15 354d.
1892-93.....14 985d.	1898-99.....15 978d.
1893-94.....14 547d.	

These figures prove how far within one generation we have travelled from the old accepted par of 2s. for the rupee, when we observe the same coin that was valued in exchange in 1872-73 at 1s. 10½d. fallen to 1s. 1½d. in 1894-95. A civil servant who might in 1872 estimate his salary of Rs.20,000 as nearly equal to £2000 would find in 1894-95 that he must reckon it at somewhat under £1200; such, at least, was the change as affecting every portion of it remitted to England. The greatest remitter of all, and consequently the chief sufferer, was the Government of India; the result in the end being that the loss fell not only on the agents or servants of the Government, civil and military, nor only on merchant and trader, but on India as a whole. The serious consequences to the Indian finances were too obvious to be ignored, and the repeated attempts which were made to remedy the evil culminated in the resolution to close the Indian mints to the free coinage of silver—a policy which found expression in an Act passed on 26th June 1893.

We shall understand better how the problem arose, and how it now stands, if we touch very briefly on the salient points of Indian currency history during the present century. It is an instructive record, and is most lucidly set forth in the Report which the Indian Currency Committee issued a few months ago. In the early

years of the century gold and silver coins of different denominations and differing in intrinsic value were in circulation concurrently throughout British India. There was a gold currency in Madras, the gold pagoda being the standard coin; in Bengal, with a silver standard, there was a currency partly of silver coins and partly of gold. In 1806 the directors of the East India Company directed to the Governments of Bengal and Madras a despatch which showed they were fully alive to the inconveniences of such a state of confusion, and in which they expressed themselves as fully satisfied of the propriety of making the silver rupee the principal measure of value and the money of account. In 1818 the silver rupee supplanted the gold pagoda in Madras, and was in 1835 established formally as the standard coin of the whole of British India, while gold coin was declared no longer a legal tender of payment in any of the territories of the East India Company. Gold, however, although no longer legal tender, did not quite lose its place in the currency, for gold mohurs were issued from the mints and received in payment at the public treasuries. These gold coins were of identical weight and fineness with the rupee, and as they were styled and accepted as '15-rupee pieces,' a ratio of 15 to 1 was established between the two metals. Like other ratios, this one led to embarrassment, though by a process exactly the reverse of that with which experience has made us familiar. The exchange value of gold declined owing to the great discoveries in Australia in the early fifties—an era when serious apprehensions were entertained that gold was destined to fall heavily and perhaps permanently. These fears were speedily seen to be groundless; and a few years later, in 1864, the Indian Chambers of Commerce were agitating for a gold currency, and succeeded in inducing the Government to permit sovereigns and half-sovereigns to be received into the public treasuries at the rate of ten rupees per sovereign. In 1876 the exchange value of the rupee fell to 18½d., when the idea of suspending the coinage of silver was unofficially suggested. Two years later the Indian Government proposed to the home authorities that a gold standard should be introduced, while retaining the silver currency, and expressed a hope that they might soon be able to 'fix the rupee value in relation to the pound sterling permanently at 2s.' Their plan for effecting this was by a charge for seigniorage equal to the difference between the bullion value and that at which it was rated. The scheme was disapproved by a departmental committee, and was left untried. From 1878 there set in what may be called the bimetallist period, when relief was looked for in the direction of an international agreement. It was confidently expected in America, and in many Continental states, that silver could be rehabilitated in this way if only

a sufficient number of the greater commercial countries would lend their aid—an expectation in which the Government of India shared, but which the failure of the International Conference at Brussels in 1892 finally dissipated.

In fear of what might happen if the United States ceased to purchase and coin silver, the Government of India appealed to the Imperial Government for permission to close the mints, and to make English gold coins legal tender at  $13\frac{1}{2}$  rupees for one sovereign—valuing the rupee, therefore, at 18d. The very able committee to which these proposals were referred were unwilling to overrule them, but suggested the following important modification of them: 'We consider that the closing of the mints against the free coinage of silver should be accompanied by an announcement that, though closed to the public, they will be used by Government for the coinage of rupees in exchange for gold at a ratio to be then fixed—say 1s. 4d. per rupee; and that at the Government treasuries gold will be received in satisfaction of public dues at the same ratio.'

The Act passed on 26th June 1893 embodied these recommendations, and first set up what has at present some look of permanence—a 1s. 4d. rupee. The comparative steadiness of exchange since that time has quite indisposed the Government of India for any bimetallic solution of their currency problem. Here, then, is the situation as it stood when the Indian Currency Committee began their labours: 'Gold is not a legal tender in India, though the Government will receive it in the payment of public dues; the rupee remains by law the only coin in which other than small payments can be made; there is no legal relation between rupees and gold, but the Indian Government has declared (until further notice) a rate at which rupees can be purchased for gold coin or bullion—such rate serving to determine the maximum limit to which the sterling exchange can rise under present arrangements' (*I.C.C. Report*, p. 5).

This position forms the starting-point for the inquiries of the Committee appointed last year, whose report has just been issued—a report which is in substance a recommendation that the necessary steps should be taken to render permanent the existing conditions, so far as the gold standard and the rate of the rupee are concerned, and at the same time to introduce a gold currency, by making the British sovereign a legal tender, while coining without restriction gold brought to the Indian mints for the purpose. The report in question is a State paper of the first importance, dealing in a masterly manner with a question that bristles with difficulties. The first question to which the Committee address themselves is the crucial one, whether it is desirable to reopen the mints to the unrestricted coinage of silver. Such a change of

policy is not without its advocates, chiefly on the grounds (1) that it would encourage the export trade of India, and (2) that it would prevent undue stringency in the Indian money-market. But there is a want of agreement on important points among the advocates of the free coinage of silver. The most logical and thorough-going section would return to open mints at once. The majority hesitate, perceiving that the fall of the rupee would in all probability soon reach its present bullion value of about  $10\frac{1}{4}$ d., and would involve serious results in driving capital from India and laying new burdens upon the Indian Government. They recommend, therefore, the adoption of some more cautious and gradual method of attaining their object. The Committee reject the proposal for a return to free coinage of silver, whether immediate or gradual, on grounds which they state in the following terms, quoted from a letter addressed by the Indian Government, on 12th October 1892, to the Darjiling Planters' Association: '(1) That a country, as a whole, makes no gain in its international trade by a depreciation of its standard, since the extra price received for its exports is balanced by the extra price paid for its imports; (2) that the producer of an article of export may make a temporary and unfair gain from depreciation of the standard, at the expense of his employes and of other persons to whom he makes fixed payments; (3) but that this gain, while not permanent, is counterbalanced by a tendency to overproduction and consequent reaction and depression, by a liability to sudden falls in price as well as to rises, and by the check to the general increase of international trade, which necessarily results from the want of a common standard of value between countries which have intimate commercial and financial relations.'

Two further points require to be considered in this connection: first, whether, if a falling exchange is regarded as advantageous, there is any point at which the advantage of a fall in the exchange value of the rupee will cease; and, secondly, what is likely to be the financial position of the Indian Government should the rupee fall much below its present rate. It is calculated that a drop to 1s.—and an even deeper drop is conceivable with open mints—would increase the amount which the Government must raise in taxation by at least Rs. 7,000,000, while all authorities agree that already taxation has touched its utmost limit of safety.

There is no hesitation in the replies which the report gives on the essential points. It pronounces strongly in favour of a gold standard, *with a gold currency*. Highly ingenious schemes for dispensing with the latter have been proposed by some financial authorities, who for the most part rely on a twofold argument: first, that India is too poor to afford a gold currency; and, secondly, that to introduce gold

where the practice of hoarding is so inveterate would be like pouring water into a sieve. That there is some weight in these contentions no one will deny; but it is easy to attach too much importance to them. We have to bear in mind that to introduce a gold currency will not mean the supersession of the immense stock of rupees in circulation—these will still be available for everyday business; and that for a long time gold can come but very gradually into general use, and therefore is unlikely to be subject to hoarding to any inconvenient extent. Even if we admit dangers of the kind, they are not worthy of mention in comparison with the benefits to India of a stable exchange. To adopt a gold basis would be, says Professor Marshall, 'like bringing the railway gauge on the side branches of the world's railways into unison with the main lines.' India, too, needs for the due development of its natural resources the importation of foreign capital, and this will only be attracted by the stability of a gold standard. If those who think of Indian securities or enterprises as channels for their spare capital have reason to fear yet further falls in exchange, the natural consequence will be that they will abstain from any such investment.

The policy which the Indian Currency Committee thus recommend finds a great encouragement in the results of the experiment embodied in the Act of 1893. Within the last two years there has been a steadiness in the rupee exchange which might almost be termed immobility when compared with the experience of the last quarter of a century. There has been a close approach to the rate of 1s. 4d. named in the Act. Naturally the Indian Government have felt inclined to ask whether arrangements are not possible to make this stability permanent; and accordingly, in March 1898, they put forward some proposals towards that end. At that time, perhaps, the experiment had hardly been continued long enough to give them confidence, for they made it a part of their plan to raise a large sterling loan (of £20,000,000 if

need be) in order to enable them to withdraw whatever amount might appear necessary of the silver in circulation. The Committee do not favour this portion of the scheme, seeing no need for it. If, as the course of exchange since 1897 seems to prove, the rupee currency is not redundant, then the rupee will maintain its value for internal purposes as the five-franc piece does in France. The withdrawals at such an enormous expense to India may thus be spared.

Briefly, then, the course which the Committee favour is the adoption of a gold standard, with the British sovereign as a legal tender and current coin in India; the free coinage of gold in the Indian mints, under regulations like those which govern the branches of the Royal Mint in the Australian colonies; the maintenance of the present rate of 1s. 4d. for the rupee, safeguarding it by limiting the issue. The question of any addition to the rupee circulation is to be in the hands of the Indian Government, who will only add to it when the gold currency seems to be in excess, and the silver to fall short, of public requirements. At the same time, as a protection to the gold reserve, the Government are not to be bound to give gold for rupees or for internal purposes.

With equal brevity, we may remark on the policy so proposed, that it appears to be based on a due recognition of the facts of the case, as well as of the interests alike of the trade, the Government, and the people of India; and that it is likely to further the welfare and progress of our great dependency. How strongly the same conviction was held by the Indian Government is shown by the promptitude with which they carried out the proposals of the Committee. They at once introduced a Currency Bill in the Legislative Council, making gold a legal tender and fixing the rupee at sixteenpence, in the full belief, as the financial member, Mr Clinton Dawkins, declared, that no other measure would save India from disastrous embarrassment and fresh taxation, and that the time had arrived for terminating the unrest which had been hanging over India for a quarter of a century.

## OF ROYAL BLOOD.

### A STORY OF THE SECRET SERVICE.

#### CHAPTER XIII.—THE ROSE OF LOVE.



AS usual, I cycled next morning to our appointed rendezvous, seated myself, and patiently smoked. My eyes were eager for the approach of the first tram-car. At last it came, its alarm-bell ringing violently; the passengers alighted, and one by one dispersed. To my disappointment, my divinity was not among them. Perhaps she had risen

late, and would come by the next car; therefore I returned to my seat and possessed myself in patience, full of reflections upon the events of the past few days. That man who had sat in the Métropole on the previous afternoon was most probably her mysterious lover, about whom gossip talked; and it seemed very possible that, having detected me with her on the night of the State ball, he was now keeping a strict observation



upon me, in order to ascertain whether we met. I held this man in instinctive dislike; why, I could not tell. There was nothing really evil about the expression of his face. He was a rubicund, rather merry-looking man of perhaps forty, whose appearance gave me the impression that his sleekness was due to a fondness of good living. So far from being a hulking, low-born hanger-on, as I had pictured him, he seemed a rather gentlemanly fellow of the superior commercial class.

I sat endeavouring to analyse my feelings towards him, and at length came to the conclusion that my antagonism was due solely and entirely to jealousy. Had I met that man in the ordinary way I should have undoubtedly become friendly with him. There are men one meets who instantly become one's friends. He was one of those.

Presently the second tram drew up at the entrance to the Bois, but she came not; and although I waited fully an hour, until the liver-brigade began to assemble—Belgians in riding-breeches cut in imitation of the English and with hats of antiquated type, a few of the gayer youth of the city, and a sprinkling of stolid Flemish merchants—I waited in vain. The morning was, as is usual in June, bright and beautiful; therefore, feeling reassured that she had been prevented from keeping her appointment by unforeseen circumstances, I mounted my machine and rode the whole circuit of the Bois, my eyes ever on the alert for her.

That she would not willingly disappoint me I felt certain; therefore her absence puzzled me, and caused me to wonder whether, instead of keeping her appointment, she had met that man who was her lover. Twice I made a complete tour of the pretty wood, but saw nothing of her; and at last, in deep disappointment, I turned, and was on my way out, when I suddenly discerned a man mounted on a fine bay trotting along the leafy ride parallel with the road, and half-hidden from it by the bushes and trees. He wore a straw hat and black coat, and rode in military style exceedingly well. His height attracted me, and I noticed that he had a light pointed beard. Our eyes met, and then I recognised him as the man the Princess held in such mortal dread. He looked fixedly at me for a few seconds, and I thought I detected a smile of triumph on his lips; but in a moment he had trotted past. Without turning, I rode forward down the avenue towards my own rooms. The thought struck me that he had come there to watch my movements and to ascertain whether I met the Princess.

I spent the morning at the Legation attending to some correspondence; and, not having finished it, returned there after luncheon.

About four, having completed the work I had in hand, I descended the stairs to go, when standing in the courtyard outside was one of the royal carriages, the footman waiting motionless

and statuesque upon the steps. On passing the door of the drawing-room female voices and light laughter sounded; and, peering within, I saw that Lady Drummond had a caller. The latter, sitting near the window, wore a smart costume of prune, with a large black hat; and as I looked in her gaze suddenly met mine. It was the Princess Mélanie.

'Ah!' she cried, raising her hand to me gladly.

'There is M'sieur Crawford! Good-afternoon.'

'Good-afternoon, Princess!' I exclaimed, advancing towards her and taking her proffered hand with a feigned formality. She was purely formal towards me; therefore I saw that she had some motive. As far as I was aware this was her first call upon Lady Drummond; and the latter, honoured by the attention, seemed greatly surprised that we should be acquainted.

'Oh yes,' the Princess said in response to an observation by her ladyship, 'M'sieur Crawford is my very good friend.' Then, glancing at me with a meaning look, she added, 'He was in Vienna, you know.'

'Ah! of course,' answered Lady Drummond, who, truth to tell, had been extremely kind to me. She was an ideal wife of an ambassador, and was held in highest esteem by all the staff. More than once, at the various capitals where her husband had been Chargé d'Affaires, or Her Majesty's Envoy Extraordinary, she had been confidante and adviser of an *attaché* or a secretary who had got into feminine entanglement. As we chatted she glanced from her visitor to myself; and, knowing her shrewdness, I feared that she guessed the truth. Our gossip was, however, on trivialities. Mélanie, it appeared, had called on her mother's behalf to invite the ambassador and his wife to dine with them at the Palace on the following Sunday; and in the invitation Giffard and myself were included.

I thanked her in terms of distant formality, addressing her as 'your Highness,' which is usual according to German etiquette. Tea was brought, and as I handed her the cup she raised her eyes to mine with an amused expression. I longed to ask her why she had not met me that morning; but to speak familiarly was, in these circumstances, impossible. The Hapsburgs were the proudest family in Europe; and Lady Drummond, a polished diplomatist herself, treated her with the same etiquette as she would the Queen of the Belgians.

After quite a long gossip, during which we had been joined by Sir John, who was, however, called away to keep an appointment, she rose to go. When she did so I saw how beautiful was her costume. It was of dark prune cloth braided with black upon a groundwork of cream satin—a strikingly handsome dress, which only a princess could wear; it fitted without a wrinkle, and was the latest triumph of one or other of the *meu-dressmakers* in the Rue de la Paix.

'If you will remain one moment I will obtain for your Highness the address of that shop in Bond Street,' Lady Drummond said, as she passed out hastily into the adjoining room.

The instant she had gone my companion turned to me quickly and whispered, 'Forgive me. I could not come to the Bois this morning. To-morrow, too, I am prevented. You'll excuse me—will you not?'

'But I must see you,' I said earnestly. 'I have something of importance to say.'

She glanced at me in quick surprise.

'Cannot you tell me now?' she asked.

'No. I must meet you. Whatever appointment you can make, I am at your disposal.'

She reflected for an instant.

'Then to-night,' she answered. 'Meet me in the Wauxhall Gardens, close to the bandstand, at nine. I shall wear a white blouse, and you will discover me by that. Till then, good-bye.'

At that instant her ladyship returned with a card, and a few moments later I took formal leave of the woman I loved, standing on the steps with the wife of my chief and bowing to her as her fine equipage swept out of the gate.

Yes, the more I reflected the plainer it became that she was not averse to this mild flirtation going on between us. That she did flirt with me was without doubt; and of course, with that quick instinct possessed by every woman from peasant to princess, she was fully aware of my overwhelming passion for her.

'I had no idea you were so friendly with the Princess Mélanie,' her ladyship remarked as we went inside together. 'She is most beautiful. But, of course, the House of Hapsburg has always been famous for its lovely women.'

'Yes,' I said, recollecting the well-known legend of the Castle of Brandenburg: how, when the great old fortress-home of the Hapsburgs was besieged by the bloody Duc de Nevers in 1554, Anna, Princess of Hapsburg, is said to have entered with her husband the high round-tower that watches over the Moselle, resolved to participate in its defence, and to animate the defenders by her presence. Her beauty was renowned throughout Europe, and for months the castle withstood the siege. At last, however, outnumbered by the Franks, the garrison, including the Prince, after a most heroic and desperate resistance, perished to a man, the unhappy widowed Princess being left as sole survivor. Determined not to fall into the hands of the enraged and brutal soldiery, she threw herself from the summit of the tower in full sight of the besiegers, and was dashed to pieces on the rocks below.

'She has a charming manner,' went on her ladyship—'so ingenuous and unassuming. I'm perfectly delighted with her.'

'This is her first call—is it not?' I inquired.

'Yes. She has been in Brussels with her

mother many times; but they are very exclusive, and scarcely call on any one except, of course, at the German Embassy. She's a most sociable girl, and I'm charmed to know her.'

I smiled within myself. What would her ladyship have thought had she known that we were in the habit of cycling together at an hour when the majority of people were not yet awake? What would she have thought if she had known of the appointment we had made in that instant when she was in the adjoining room, or of the fact that the Princess was to wear a white blouse that evening in order that I might the more readily recognise her in the shadow of the trees? I was compelled to remain silent in order to avoid compromising her, for she was princess of an imperial house, while I was a humble member of Her Majesty's Diplomatic Service. I had promised to remain loyal to her.

The night was brilliant and starlit when I entered that enclosed part of the Royal Park known as Wauxhall, where, on summer evenings, the orchestra of the Opera plays on the *al fresco* stage, and the *haut monde* of Brussels sit beneath the trees at the hundreds of little tables, taking their after-dinner coffee and liqueurs. Of all the many diversions in the Belgian capital it is perhaps the most *chic* and the most enjoyable, for the music is invariably excellent, and the crowd always a well-dressed one. The tourist who spends his week in Brussels does not patronise a mere orchestral concert; he prefers the *cafés* where variety entertainments are provided, and where 'entrance free' is written up in bold capitals. Hence Wauxhall is purely Belgian.

I found a table unoccupied at the farther end, beyond the stage and somewhat in the shadow; therefore I took it and ordered some coffee, hoping that I should meet no friends and be compelled to join them. It was delightfully cool and fresh there after the heat and burden of the day, and I sat drinking in the air, enjoying my cigar to the full. I had had a heavy day, and that relaxation was doubly gratifying. The whole of the white façade of the Theatre du Parc opposite was outlined by lights in white globes, and everywhere in the vicinity of the orchestra was brilliant illumination; but where I sat was beyond the zone of light, for I had chosen that spot in order that none should observe me. Among that after-dinner crowd of women in evening toilets and well-dressed men there were many with whom I was acquainted; and if, for example, one man fastened himself upon me, I might lose my opportunity of speaking with the Princess.

At length, after straining my eyes long and vainly into the stream of constant arrivals, I saw a female figure, in black hat, wearing a dead-white blouse of soft silk, and at once rose to meet her. She wore a thick veil, and at first I hesitated to speak, not being quite certain as to her identity. She noticed this, and, laughing at

the completeness of her disguise, greeted me and seated herself at my table.

'That veil is excellent,' I said, joining in her laughter; 'I should never have recognised you.'

'I borrowed one of my maid's blouses,' she explained. 'There are many women here I know; and some are very sharp to detect any bodice they have seen before.'

'Will any one be likely to recognise you here?' I asked.

'Ah! Perhaps they might,' she said, glancing round in apprehension. 'There's the Countess Lunssens over there,' she added, indicating an old lady in a gay bonnet of steel spangles and roses, chatting to an officer. 'Yes, it will be better to get away from here.'

Therefore we rose again and strolled away into the dark shadows beneath the trees. It was strange and exciting this clandestine meeting; but she was veiled, and we both congratulated ourselves that she was beyond recognition. Into that dark avenue only one or two couples had strayed, and we were practically alone. The band was playing Saint-Saëns' 'Danse Macabre'; and through the trees, where the lights twinkled, came the distant roar of the city and the rattle of cabs in the Rue Royale.

The Palace was close by. Indeed, the Princess had only to cross the road and traverse the Park to meet me. She had, she explained, escaped immediately after dinner, her maid alone being in the secret of her absence; and then she chatted to me with that light vivacity which was in itself plain proof of how delighted she was to walk there. I had been egotistical enough to flatter myself that she was not averse to my company, and now it seemed as though she remained in rapturous contentment.

In the gloom we found a seat and sat down.

She was discussing her visit to Lady Drummond, and expressing herself surprised to find her so pleasant.

'I had been told,' she said, 'that your ambassador's wife was rather masculine, and I abominate masculine women; but I found her the exact opposite. She was extremely agreeable.'

'It was your first call?' I suggested.

'Yes,' she answered. Then after a pause she faltered, 'I did not go exactly to visit her, you know. I thought perhaps I might possibly meet you, and I wanted to see you.'

'Why?' I inquired, rather abruptly I am afraid.

'Well,' she responded in a voice of hesitation, 'first, I feel convinced that we are friends—is that not so?'

'If I may be your true friend, Princess,' I said, 'I shall esteem your trust the greatest honour you can bestow upon me.'

'Thank you,' she said quietly. 'I believe entirely that you are a man of honour. Do not think I speak to you thus without having made inquiries. Your past has shown that I, a woman who is in a dire dilemma, may trust you.'

'You can implicitly,' I answered fervently; 'I assure you of that. You say you are in a dilemma,' I went on. 'How can I assist you?'

'Ah! no. Not now,' she replied in a rather strained voice. 'No; not yet. What I wanted to ask you was whether, if I desired your help, you would give it to me; whether you would act in blind obedience to my wishes.'

'Princess,' I said in deep earnestness, 'I am a diplomatist, one who to your eyes must be but a spy and a liar by profession. Well, my oath to my Queen entails the combating of the machinations of unscrupulous enemies; and when fair means fail we are compelled to resort to those unfair. Towards me, however, I assure you that if ever I can render you a service you have only to command me.'

'If that service were a difficult one—a very difficult one,' she asked, almost in a whisper, as she bent towards me, peering eagerly into my face—'what then?'

'That makes no difference,' I answered firmly. 'To serve you is the greatest desire of my life.'

She sighed heavily, and seemed strangely uneasy.

'In what dilemma do you find yourself?' I went on. 'Tell me. Perhaps I can assist you now.'

'Impossible,' she responded. 'Some day, however, I shall call upon you to redeem your promise.'

'Put me to the test,' I cried passionately. 'You will not find me fail.'

'Ah!' she said, again sighing, 'it is strange that we should meet like this, you and I; strange that, having only known you for so short a time, I should speak thus to you. I fear you must think me very capricious.'

'Our talks are most delightful to me,' I declared. 'I only fear that my companionship may bore you.' She laughed a light musical laugh.

'If so, then why did you ask me to see you to-night?' she inquired.

'Because I have something to say to you,' I replied, in a moment serious. 'Do not think me inquisitive, for I admit that I have no right whatever to obtrude in your private affairs.'

'Are we not friends?' she interrupted quickly.

'Certainly,' I said; 'but this matter is of so delicate a nature that, were it not imperative, I should hesitate to speak of it.'

'No?' she said, interested. 'Tell me. What is it?'

'You will remember the night of the ball. Before we parted we encountered a tall, fair-bearded man who looked at you with a curious glance and passed on.'

She started perceptibly.

'Yes, yes. And what of him?' she gasped.

'That man, whoever he is, has been following me of late,' I said simply.

'Following you!' she cried. 'Has he, then, dared to—'

But she stopped short without finishing her sentence. In her anger she had almost given me an explanation, and only drew herself up just in time.

'I thought it wise to tell you of this, and to ask your advice,' I went on as calmly as I could; adding, 'And again, there is one other matter, for mentioning which I hope you will forgive me.'

'There is nothing to forgive between friends,' she responded.

'Well, briefly, it is this,' I said. 'In certain circles where gossip circulates and names are bandied about freely there is a report current that you meet clandestinely some male acquaintance on certain nights in the Boulevard Waterloo, and elsewhere. I do not demand to know whether this is truth or not,' I added hoarsely; 'I have no right to make such inquiry.'

'Supposing it to be actually the truth?' she asked quickly, in a rather resentful tone. 'What then?'

'There is a secret conspiracy on foot against you,' I said in a very quiet tone. 'It is intended one night to follow you to the place of assignation and there discover you with your'—

'With my lover,' she said, finishing my sentence. 'Yes, I know full well your thoughts, m'sieur.'

'It is suggested that you love this man,' I declared quite plainly.

'So my enemies are plotting to create a scandal about me!' she exclaimed, with quick warmth. 'There is, I suppose, not sufficient scandal in Brussels; therefore they must needs invent more. They would blast the reputation of every honest woman. When did you learn this?'

'Only yesterday,' I answered. 'It was the duty of a friend to warn you, even though it be a painful task.'

She was pensive for a long time. There was an interval in the music, and all was calm and peaceful in the half-darkness where we sat.

Then, turning to me, she suddenly grasped my hand warmly in hers, saying, 'In giving me this warning you have rendered me a great service; how great you cannot dream. Believe me, I shall never forget it—never.' There was a strange catch in her voice which I knew to be due to emotion that she had striven in vain to repress.

(To be continued.)

## ANAGRAMS ANCIENT AND MODERN.

By the Rev. A. CYRIL PEARSON, M.A., Author of *One Hundred Chess Problems, Curiosities of Chess, &c.*

Torture one poor word ten thousand ways.—DRYDEN.



T would perhaps be out of place in these pages to trace the use of anagrams to the word-juggling of mystic Cabbalists, or to consider whether such trifles really date back to the days of Moses, as Camden,

the great antiquary, affirmed. Certainly from very early times this form of mental gymnastics has had a notable place among the many 'quips and cranks' which fringe the lighter side of literature; so that what was quite a craze in the sixteenth and seventeenth centuries, as a method of illustrating and divining personal character and destiny, still crops up from time to time as an amusement akin to conundrums, palindromes, and other verbal puzzles.

Even if we have no particular bent in that direction, we can but admire the aptness or oddity of some striking or ingenious anagram which we chance to meet with; but those to whom such tricks and twists appeal most strongly may soon forget them. As no complete collection has hitherto been published, the following specimens, ancient and modern, gathered from several sources, will interest many readers and form a handy record, from which they can at any time refresh their memories.

It may be well to note at starting that in olden days *j* and *i*, or *u*, *v*, and *w*, were used interchangeably for these purposes, and that a true anagram is

produced by the use of every letter of the original word or sentence, with no other letter added.

Anagrams that transmute the names of well-known men and women are often startlingly appropriate. What could be better in this way than these announcements, evolved from two great statesmen's names when the reins of power changed hands: Gladstone, 'G. leads not; ' Disraeli, 'I lead, sir!' Quite as happy is the comment on the devoted nursing of Florence Nightingale, whose name yields 'Flit on, cheering angel.' Among those that are most often quoted we may mention Horatio Nelson, '*Honor est a Nilo*;' Charles James Stuart, 'Claims Arthur's Seat;' Pilate's question, '*Quid est veritas?*' ('What is truth?'), answered by '*Est Vir qui adest*' ('It is the Man here present'); Swedish Nightingale, 'Sing high, sweet Linda;' David Livingstone, '*D.V., go and visit Nile*;' the Marquess of Ripon (who resigned the Grand-Mastership of Freemasons when he became a Romanist), '*R.I.P.,* quoth Freemasons;' Charles Prince of Wales, 'All France calls: O, help!' Sir Roger Charles Doughty Tichborne, Baronet, 'Yon horrid butcher Orton, biggest rascal here;' and many shorter specimens, such as telegraph, 'great help;' astronomers, 'no more stars' and 'moon starers;' one hug, 'enough;' editors, 'so tired;' tournament, 'to run at men;' penitentiary, 'nay, I repent;' Old England, 'golden land;' revolution, 'to love ruin;' fashionable, 'one-half bias;' lawyers, 'sly ware;' midshipman, 'mind



his map; 'poorhouse, 'O, sour hope!' Presbyterian, 'best in prayer; 'sweetheart, 'there we sat; 'matrimony, 'into my arm.'

Not so well known, perhaps, are the following excellent examples: Arthur Wellesley, 'truly he'll see war; 'Arthur Wellesley, Duke of Wellington, 'let well-foiled Gaul secure thy renown; 'Martin Luther, '*lehrt in Armuth*' ('he teaches in poverty'); William Ewart Gladstone, 'wild agitator: means well; 'Charles Dickens, 'cheer sick lands; 'John Abernethy, the brusque surgeon, 'Johnny the bear; 'Cleopatra's Needle, London, 'an old lone stone replaced—surely a splendid instance of accurate description; *Paradise Lost*, 'reap sad toils; 'Paradise Regained, 'dead respire again; 'Fawcett, Postmaster-General, 'we can get a stamp for letters; 'Randal Holmes, a writer on heraldry, 'Lo! men's herald; 'Voltaire, '*O, alte vir!*' ('O, great man!'); Marie Touchet, a famous French beauty, '*je charme tout*'; Sandcroft, Lloyd, Ken, Turner, Lake, White, Trelawney, the seven bishops sent to the Tower for libel in 1688, 'O, let the well-known rank defy a cruel tyrant's ire,' and also, 'keenly ye work and wrestle all for ancient truth.' Right Honourable William Ewart Gladstone has been twisted, with more ingenuity than kindness, into 'I'm a Whig who'll be a traitor to England's rule.'

There are many Latin anagrams of unusual merit and interest. With wonderful skill and patience, and almost incredible success, the long sentence, *Ave Maria, gratid plena, Dominus tecum* ('Hail, Mary! full of grace; the Lord is with thee'), has been transformed into '*Virgo serena, pia, munda, et immaculata*' ('Virgin serene, pious, pure, and spotless'), and also into '*Regia nata, evadens luctum amari pomi*' ('Royal offspring, escaping the sorrow of the bitter apple'); *D. Martinus Lutherus*, thus dealt with, becomes '*ut turris das lumen*' ('as a tower thou givest light'); *Elisabetha Regina Angliæ* becomes '*Anglis agna, Hiberiæ lea*' ('to the English a lamb, to Spain a lioness'); while *Carolus Rex* shines out as '*cras ero lux*' ('to-morrow I shall be a light'), and is said to have been written by King Charles II., on the eve of his restoration, upon a window at King's Newton Hall, Derbyshire. A sad presage of her fate was found in the sentence *Maria Steuarda Scotorum Regina*, which forms the anagram '*Trusa vi regnis, morte amara cado*' ('Thrust by violence from my realm, I fall by bitter death'). The curious juggle with letters which allies the title *Supremus Pontifex Romanus* with the phrase '*O, non sum super petram fixus*' ('O, I am not founded on a rock'), a sentiment quite out of harmony with the claims of its exalted subject, can by a slight interchange of letters be altered into the very motto which would have been appropriate and acceptable to Pope Pío Nono, '*Sum Nono super petram fixus*' ('I am Nono, founded on a rock').

It is worthy of notice that Mary, the sweetest and most simple of Scripture names, has as its

anagram 'army.' The conflicting thoughts suggested by these two words are thus happily adjusted by George Herbert in his quaint style:

How well her name an army doth present,  
In whom the Lord of Hosts doth pitch His tent!

Let us pass now to some few instances of what may be called manifold anagrams, wherein words or short sentences can be multiplied in fresh forms, as varied as the shifting patterns in a kaleidoscope. Of this sort is monastery, which changes into 'my one star,' 'no mastery,' 'stone Mary,' 'stone army,' and into such less pleasant variations as 'mean story,' 'my treason.' Very curious, too, are the many mottoes formed from the words *Domus Lescinia*, and displayed on shields carried by students of the College of Lissa as they went out to welcome young Stanislaus, afterwards king of Poland. Of a dozen or more the best anagrams were: '*ades incolumis*' ('in safety thou comest hither'); '*mane, sidus loci*' ('stay, star of this place'); '*sis columna Dei*' ('be as God's column'); *I, scande solium*' ('go, ascend the throne').

Sometimes we find a touch of humour turned to good account. Thus, the story goes that in bygone days, when the craze for anagrams ran strong, Lady Eleanor Davies found in her name the imperfect one, 'reveal, O Daniel,' and upon this claimed to be an inspired prophetess; nor would she let the land have peace until the Dean of Arches met her with her own weapon, and knocked Dame Eleanor Davies into 'never so mad a ladie,' upon which she for the time hid her diminished head. There must have been a queer twist in the mind of one Car, friend and biographer of the poet Crashawe, when, to his great joy, he found that Crashawe could be resolved into 'he was Car; ' and finding himself thus incorporated with his best beloved, broke out with the inquiry, 'Was Car then Crashawe, or was Crashawe Car?' In similar mood William Oldys produced these lines, suitable for a Christmas card or valentine, in which, without altering the order of the letters, he turns his name into an anagram:

In word and will I am a friend to you,  
And one friend old is worth a hundred new.

Hoping that all this word-twisting will not have so serious an effect upon my readers as an anagram upon his name had some two hundred years ago upon the hapless André Pujom, who discovered that it could be rendered '*pendu à Riom*,' and who thereupon committed murder that he might be hanged at Riom, the seat of criminal justice in Auvergne, let me close this article, which will have its value as a collective record of many scattered curiosities, with a few recent anagrams for which I am personally responsible: Abdul Hamid Khan, Sultan of the Ottoman Empire, comes out correctly as 'inhuman despot, that maketh Armenia bloodful; ' the Dreyfus court-martial at Rennes,

'France on her trial must reseal duty;' Beecham's Pills are worth a guinea, 'I cure, am a blessing, a health-power;' Use only Erasmic Herb Soap Tablets, 'best, O, so pure! A balmy cleanser this.' The names of the twelve months give exactly these lines, that scan and rhyme:

'Merry, durable, just grace  
My every future month embrace;  
No jars remain, joy bubble up apace.'

Charles H. Spurgeon yields 'Oh, preacher's lungs!' and, as an up-to-date specimen, the Right Honourable William Vernon Harcourt is, 'come on, truth; high ritual error and bane will vanish.' The following appropriate sentences, recently formed from the full names of persons known to me, are good instances of an amusement open to all,

which can be called onomancy, or divination by name. I have not permission to give the names, but each onoman is a perfect anagram. A lady who has one baby boy 'has one little son.' The little son, 'heir, eat and grow handsome.' A deaf and dumb man who is married happily, 'love is lord and danger done.' A doctor, 'I mend all under a week.' Another medical man, 'we skin chariatans.' A clergyman, 'I will sing emblems, altar, font.' One whose life has been turbulent, 'a rough road, sir; old age can be sweeter.' A barrister's wife, 'likely to enter a court.' My latest attempt in this direction should be of good omen at the present time: The Right Honourable Sir Redvers H. Buller, V.C., 'Brave British hero! he'll govern Dutch rulers.'

## QUENTIN HARCOURT, Q.C.: HIS LOVE STORY.

IN FOUR CHAPTERS.—CHAPTER IV.



QUENTIN HARCOURT took his whole length of furlough in his first instalment of his Canadian travels, which he renewed again and again as opportunity served, the scenery and the people of that great Dominion exercising a strong fascination over him. He fought with his passion as a brave and honest man should, and reduced it to subservience to work and duty; but its vitality vindicated itself in many a silent hour, and often stirred and quickened in the heat and hurry of professional achievement.

When he came home after his first absence he found that Dolly had lost her governess, for Sir Robert had held out the olive-branch to his niece, and she did not feel justified in refusing it. He was glad of this for Hester's sake, and for his own he was glad that he could still comfort himself with Dolly's affectionateness and tender recollections of Hester Sartoris. He knew that Captain Fleming's regiment had been ordered to Egypt for service in the Soudan, and he followed all notices of its career with an unflagging, complex interest. Twelve months had passed since his interview with Hester; and, partly from avoidance and partly from chance, they had never crossed each other's path.

But it so happened that at the precise crisis when all the newspapers were chanting the praises of the gallant corps to which her lover belonged—'What splendid opportunities,' thought Quentin, 'fell to the lad's share!'—and more especially of some signal act of gallantry on his own part, Quentin met Hester at a public reception. When he looked at her his feeling was that he had never loved her so much as at that moment, also that his memory had made a poor transcription of the loveliness of her expressive face and the engaging charm of her

manner. But he was enough master of himself to hide any disturbance under a fair show of friendliness, and to offer her his congratulations on her lover's distinction.

'But he is wounded!' was her answer; and he saw the anguish in her face and heard it in the vibration of her voice.

'I observed that he was reported as "slightly wounded,"' he said; 'but that is nothing. It only makes his triumph more complete and his promotion more certain. He will be invalided home, Miss Sartoris, and you will nurse your hero.'

She sighed and shook her head.

'You are very good, as always,' she returned; and there was a certain fervour in her manner that brought the colour to his face. 'I pray God you may be a true prophet.'

Two days after there appeared a despatch from the general commanding at headquarters, that made the heart of every Englishman and Englishwoman beat with gratitude and pride, for it contained the record of consummate skill and forethought on one side and superb valour on the other. But amongst other details the death of Captain Fleming was announced 'with deep regret.' His wound was healing favourably when enteric fever supervened, and he had died after thirty-six hours' illness. When Quentin read this he was aware of a sharp pang of feeling. He suffered because he knew that she would suffer so keenly, and, besides, he was sincerely grieved that so brave a man had fallen so prematurely; but the sharpest sting of all lay in the fear lest he should be base enough to rejoice in the possibilities which the future might enclose. He dared not go to see her; but he wrote her a manly letter, which had the ring of sincerity in every word; and then he had the courage and patience to let a year expire before he went

to see her and to gather from her his own chances of happiness.

Hester was very kind and sweet; but he felt at once that in her virgin widowhood and sustained sorrow she was farther removed from him than when her dead lover was alive.

'I do not pretend to misunderstand you,' she said; 'and I am grateful, as indeed I was grateful before. But I do not think I shall ever marry.'

Quentin did not urge her further, but he smiled to himself with a sort of tender cynicism. He knew that human sorrow—like all things human—was finite, and that the temper of his own mind was persistent.

He suggested to his sister that she should invite Hester Sartoris to join her and Dolly in a visit she was contemplating to Dinard for the benefit of the child's health.

'It will do good all round,' he said. 'Dolly will draw out the old interest again and help her to cease brooding over poor Jack Fleming.'

'And you will run across and help her to forget?'

He nodded. 'Give me a leg up, Dolly, as occasion serves,' he said, smiling; 'but with discretion, dear—with discretion!'

The plan was carried out, and the Whitsuntide holidays found him free to make good his purpose under the most favourable conditions. The exquisite June weather bound sea and land under permanent enchantment. He was the constant companion of Dolly and her friend in a series of sight-seeing days around a locality rich in beauty and historical association, and made doubly interesting by his versatility and erudition. Then there were hours spent in charmed idleness, watching the ebb and flow of the glittering tide as the sun set at the close of these busy days, when books and writers were discussed and quoted, and each found something akin in the mind of the other, or—what was equally welcome—some stimulating difference of opinion.

Quentin did not speak a word of love or show

the least desire to be alone with her; but he succeeded in showing her the resources of his intellect and the under-gentleness and goodness of his nature; and then he went away without speaking one word of the past or the future.

His intention was to let a longer interval elapse before again putting his hopes to the test; but he heard from his sister that Lord Molineux was renewing his suit, backed as before by Sir Robert's influence, and he decided that delay might be dangerous. A morning or two after he dressed himself with scrupulous care, and went to see her at her uncle's house in Hans Place.

'You know why I am come,' he said after the first greetings were over, during which he saw with a pang that she was looking pale and harassed. 'It is to tell you the old story in the old way. I want you sorely, Hester. I have a friend who is so happy in his marriage that I have left off visiting him because I could not bear the sharpness of my own desire. Dear, come to me and make my life rounded and complete like his! Has not the time past sufficed to sacrifice the living to the dead? Once before I said I believed I could make you happy; to-day I am sure of it.'

For a moment silence, her eyes on the ground deliberating. Then she looked up flushed and radiant.

'I thank God,' she said, 'you have spoken to-day. I was afraid you had left off caring for me. I have long found out that I loved you, but'—She hesitated. 'I have been sorely tried of late. Lord Molineux has been so faithful and so kind'—

He felt a keen apprehension.

'You have not pledged yourself to him?' he asked sharply. 'If so, we will break the bond.'

She held out both her hands to him with a charming gesture.

'No,' she said; 'I have escaped a grievous pitfall, and—you have saved me.'

THE END.

## THE MONTH: SCIENCE AND ARTS.

### SMOKE ABATEMENT.



HE dark days have once more brought the subject of smoke abatement to the fore, and the owners of factories who neglect to consume their own smoke are very rigidly dealt with; but we all know that the domestic fireplace is the chief offender, a fact which is made evident by the circumstance that the smoke-evil is chiefly apparent in the cold weather, when domestic fires are at their maximum. The difficulty has been partly met by the wide adoption of gas stoves

and gas cookers, which are so prevalent in some neighbourhoods that the chimney-sweepers find their occupation gone. A correspondent of the *Times* shows how householders could do still more in the destruction of the fog-demon by using coke instead of coal. The difficulty of lighting coke can be obviated by using for each grate a perforated pipe connected with the gas service of the house; the cost of gas per week being so much less than the cost of kindling wood, the expense of the pipe and connections, to say nothing of the lower price of coke as compared with coal, is covered in six months.

## SALMON-FISHING IN 1899.

It seems a remarkable thing, at a time when so much scientific attention is given to pisciculture, that one of our greatest authorities, Mr Henry Ffennell, should give such a melancholy account of salmon-fishing during the past year. 'I am sorry to say,' he writes, 'the year 1899 must unquestionably take a foremost position among the seasons which are more or less accurately described as the "worst," or nearly the "worst on record."' There have been, it is true, a few exceptions in England and Wales; but, generally speaking, the whole of the fisheries of the United Kingdom show an alarming falling off, and in some places the industry was 'worked at a dead loss.' In some years as many salmon have been taken in a month in the Tweed, for example, as were taken the whole of the past season. Fishing on the Spey was still worse, and in this instance the evil is traced to the pollution of the river by the distilleries; but there is evidently some undiscovered cause for the serious diminution in the number of salmon taken; and the matter is so important that a thorough investigation should at once be made. Mr Augustus Grimble, in his article 'Salmon for Food and Salmon for Sport' in this *Journal* for 1899, suggests almost the only practicable remedy.

## LETTING BY 'TIME-CANDLE.'

There is something very pleasant in the retention of quaint old customs in an age which is remarkable for its scientific advances; and now and then we find the old and the new in strange juxtaposition. For example, we recently found in one newspaper an account of the letting of a piece of land at the village of Aldermaston, in Berkshire, when the ancient custom of letting by 'time-candle' was observed—that is to say, a short length of candle was lighted when the bidding commenced, and the last bidder before the candlelight died out was declared the tenant.

## A RESEARCH GRANT.

In the same journal we find a notification to the effect that the Goldsmiths' Company have voted one thousand pounds to the Royal Institution of Great Britain 'for the continuation and development of original research, and especially for the prosecution of further investigations of the properties of matter at temperatures approaching that of the absolute zero of temperature.

## A PHOTOGRAPHIC TIME-RECORDER.

Witham's patent time-recorder is an instrument which, by photographic agency, is designed to record in an indisputable manner the attendances of clerks and workmen at large places of business. It is in reality a form of camera combined with a clock, with a button in front to be pressed for a moment by each workman as he

enters or leaves his employer's premises. The result is impressed upon a sensitised ribbon of celluloid in the form of a portrait of the individual, and an image of the clock-face showing the exact time at which the record is made. The idea is ingenious; but we do not see how such records could be made effectually except in very good light. In the winter-time, for example, men go to and from their work in the dark hours when photography is impossible. Particulars of the machine can be obtained at 161 Cannon Street, London, E.C.

## SERUM.

We seem fast approaching a period when all the ills to which human flesh is heir will each find its cure in the shape of a serum. With this serum the *corpus vile* will be inoculated, and the particular disease at which the treatment aims will utterly disappear. It is reported that Professor Mechnikoff, of the Pasteur Institute in Paris, has made certain investigations which lead him to hope that human life may be prolonged to an extent never before anticipated except by Methuselah. The investigation is not yet beyond the theoretical stage; and we know that a wide gulf often separates theory from practice, so that we cannot look upon this somewhat doubtful boon of prolonged life as a thing accomplished. A more hopeful discovery is that attributed to Dr Sappelier and Dr Thebault, who have found a prophylactic against that craving for alcoholic stimulants which is such a curse of our civilisation. Here again a magical serum comes into prominence. A horse is first of all alcoholised—which, we presume, is a polite term for being made very drunk—and the serum extracted from the creature's blood and injected into the human body promotes an aversion to alcohol which will regenerate thousands of erring mortals.

## ELECTRIC LEAKAGE.

Some years ago one of the large dynamos at the Deptford electrical station, near London, had its current accidentally diverted to earth, and the effect of the leakage was noted as far north as Leicester and as far south as Paris. It has also long been known that by the action of the current used in working the South London Electrical Railway, the magnetic instruments at Greenwich Observatory, several miles away, are detrimentally affected. As electrical railways are now on the increase, their behaviour in this respect becomes a matter of some moment; and, as a result, there has been a conference of representatives of such railways and tramways on the one hand, and representatives of the Greenwich and Kew Observatories on the other. The object of the conference is to ascertain the best means of dealing with the difficulty, and a committee of experts has been appointed to investigate the amount of magnetic disturbance produced, and to report as early as



possible. Apart from the natural objections of the Observatory authorities, these conduction currents making themselves evident over such large areas open up the possibility of a system of wireless telegraphy which may prove useful some day.

#### THE NATIONAL GALLERY.

The cheapness and general excellence of photographic methods has worked quite a revolution in the matter of illustration of books and periodicals; and picture exhibitions, even of an ephemeral character, have now most lavishly illustrated catalogues. Nearly all the great Continental galleries have similar catalogues, which are issued at a price which brings them within reach of the poorest student. We have hitherto in this country stood aloof from the issue of illustrated catalogues so far as our national pictures are concerned; and it seems strange that at last it has been left to private enterprise to fill so important a gap. Under the auspices of Sir Edward Poynter, Messrs Cassell & Co. are now issuing an illustrated catalogue of the National Gallery pictures, including those hung at the Tate Gallery. That the work is well done goes without saying; but the price—seven guineas—will be prohibitive to many would-be buyers—a difficulty which is evidently anticipated by the publishers, who are limiting the number of copies to one thousand. What is wanted is a popular illustrated catalogue of the chief pictures, which, like that of the Louvre and of the Munich Gallery, can be purchased for about as many shillings as the new British one costs guineas.

#### X-RAY ADVANCES.

Röntgen's so-called 'X-rays' have now taken a permanent position in the equipment of the surgeon as a most valuable means of diagnosis in the case of fractured bones, and as a detector of the presence of foreign bodies in the flesh. These same beneficial rays promise to help the medical profession in quite a different direction—that is, as a curative agent. It was discovered, soon after their detection by Röntgen, that the rays had an effect like sunburn on the skin, and it was anticipated that this scorching effect might prove of service in the treatment of certain diseases of the skin. It now seems certain that cases of lupus are much benefited, if not cured, by being treated to periodic applications of the X-rays, and the hope is also held out that obstinate cases of eczema, ringworm, &c. will succumb to the same agency. It may be mentioned here that at Copenhagen a number of cases of lupus have been successfully treated by exposure to sunshine, the alleged cures being about thirty per cent. Time is required to show whether the relief obtained is temporary or permanent.

#### BLACK RAIN.

To the January number of *Knowledge* Major L. A. Eddie contributes an interesting article on

various falls of inky rain. The first case of the kind which comes under review occurred at Grahamstown and the surrounding district in August 1888, and it extended over an area of no less than three hundred and sixty square miles. Since then there have happened several showers of a similar character, but less pronounced in their sable character. Other showers of black rain have been recorded in Ireland, one of which was felt over an area of four hundred square miles. No one seems to have microscopically examined the water which fell at Grahamstown; but it was noted that the liquid gradually cleared when placed in a suitable vessel, and a black precipitate fell from it. In the later cases referred to the deposit has been carefully examined, and was found to consist of microscopic organisms which averaged about the twelve-thousand-five-hundredth part of an inch in length, and which were identified with the same fungoid organisms that are responsible for blight in the plants which they infest, and subsequently for smut, mildew, and rust in wheat and barley. The writer sums up his remarks thus: 'Humidity is known to contribute largely to the copious production of fungi, and during protracted drought the regions affected thereby will remain comparatively bare of fungi; but during the seasons of frequent rainfalls the production of a fungoid vegetation is largely increased.'

#### SCIENTIFIC AIDS TO WARFARE.

Reports of the war in South Africa constantly refer to the many aids which science affords to troops in the field. We can hardly regard the use of the balloon as being novel, seeing that soon after the pioneer experiments of the brothers Montgolfier a hot-air balloon was introduced on at least one battlefield. Lyddite, wireless telegraphy, and speech by searchlight are, however, comparatively modern ideas. Photography does not seem to have commended itself to our War Office as a necessary aid to scouting. It has been pointed out by more than one authority that by employing a telephoto lens attached to a camera in the car of a balloon enlarged views showing all the details of the Boer defence could have been obtained, which would have given information previous to the repulses at Magersfontein and at the Tugela and Modder Rivers, of which our generals were evidently much in need. A book on telephotography—which does for the camera what the telescope does for the eye—by T. R. Dallmeyer, has recently been issued, and the illustrations in it abundantly show of what great service the system might prove in military and naval operations.

#### SHIELDS FOR INFANTRY.

What at first seems a retrograde step is the suggestion that the shield should once again form part of the foot soldier's equipment. Recent

events have shown that, against modern quick-firing rifles in the hands of determined men who have had time to entrench themselves, the finest soldiers in the world are all but powerless. It is the recognition of this stupendous fact that has led to the introduction of Boynton's bullet-proof shield. The shield is made of a special form of steel-plate manufactured by Messrs Cammell & Co., of Sheffield; and, although its thickness is only about one-twelfth of an inch, it will stop a rifle bullet up to quite near range. The shield, which is the outcome of practical experiments, weighs only seven pounds, and has a loophole through which a rifle can be fired. If necessary a company of riflemen can join their shields together so as to form a defensive wall, behind which they are as safe as if entrenched. The shield is designed to be carried on the rifle; but it is so made that it can be detached from the barrel as quickly as can a bayonet.

#### TECHNICAL EDUCATION.

For many years our country has cried aloud for a more technical system of education, which would enable British workmen to compete on more equal terms with their Continental brethren. The reproach that our schools are defective in this respect can no longer be maintained. At the Educational Exhibition recently opened at the Imperial Institute, London, from which will be selected a number of objects for exhibition at Paris, this is amply proved; for we find schools from all parts of the kingdom sending works in wood, metal, and other materials which have been beautifully wrought by the hands of children of all ages. The Board school and the college seem to vie in this endeavour to make the rising generation possess an education of the fingers and the eye as well as that of the brain, and we are glad to know that the foolish old notion that manual labour of any kind is derogatory has altogether ceased to have any meaning for a sensible man.

#### A NEW METAL.

Since the wholesale production and consequent cheapening of aluminium, which within living memory was worth more than its weight in gold, many useful alloys have been made. Among these one of the most recent is albradium, a perfectly white metal of attractive appearance, which can be made into plates, tubes, rods, or ornamental castings. It is supplied in ingots of three different brands: No. 1 being adapted for rolling and drawing, No. 2 for fine art castings, and No. 3 for similar work of increased strength. The new metal is said to be free from corrosion, and to be extremely durable; while its price compares favourably with brass, German silver, bronze, &c. As a set-off against these obvious advantages it may be noted that in most aluminium compounds a great difficulty is found in the matter of soldering and in obtaining perfect screw threads.

We are unable to say whether, in the alloy under consideration, these obstacles have been overcome.

#### OZOTYPE.

Ozotype is the name of a new photographic printing process which is due to the researches of Mr J. Manly, of London. Although it has not yet reached the commercial form, there is little doubt that when placed upon the market it will meet with many supporters. Mr Manly lately gave a private demonstration of his process, which, we may mention, is of a permanent character, for the image is produced in any coloured pigment or in carbon. It may be briefly stated as follows: A sheet of good paper is brushed over with a certain solution, and hung up to dry in a dark room. When dry it is exposed to light under a negative in the usual way, until a faint image is seen. The paper when removed from the printing frame is squeezed wet against a piece of carbon tissue, which may be of any colour, and the print is finally developed, like a carbon picture, in warm water. It will then be found that the carbon from the tissue has transferred itself to the print with very fine effect.

#### AUTOMATIC DIE-SINKING AND CARVING MACHINES.

A wonderful invention, an automatic die-sinking and carving machine, is now established in London. From a sufficiently hard model a reproduction can be made, slightly reduced in size, but otherwise exact in the most minute particulars. The number of substances that can be carved by the steel cutter attached to the machine appears to be inexhaustible, excellent results having been obtained in steel, wood, ivory, marble, glass, and many other materials. The process is as follows: A pointer travels over the model, the mechanism being such as to ensure that every detail of the design is traversed. The motion of the pointer is communicated to a bar, on which is fixed the steel cutter, which revolves rapidly, corresponding with the pointer, and completes the work in a few hours, according to size. Generally speaking, a hard model is desirable; but ivory has been carved from a design in papier-mâché.

The machine will undoubtedly revolutionise several trades, especially die-sinking, and carving in metal, ivory, and wood. An entirely new departure is also instituted by this machine in carving glass, it having hitherto been held impossible to do so with a steel tool; while in the work of the lapidary and the gold and silversmith its capabilities are unique.

It is not less wonderful that this invention will simultaneously cut from the same model several articles of different sizes, and, if desired, in different materials. Thus, from a model 6 inches in diameter, the machine will produce in a few hours the same design in three pieces respectively 5 inches, 4 inches, and 3½ inches in diameter; in fact, any size down to that of a threepenny-piece.

As it is automatic, no attention is given to the machine once the process is started. Indeed, when a very large model is used, which would occupy several hours, the machine is frequently set to work overnight, power being, of course, continuous; and on the workshop being opened in the morning the work is found completed. One machinist supervises all the machines, his work consisting of fixing the model and the objects to be cut in their right positions; after this an occasional visit with an oil-can is all that is needed for the production of the finest examples of carving

that can be desired. These machines will shortly be exhibited in the West End of London.

## A CORRECTION.

In our December issue, in a paragraph headed 'Coast-line Defence,' we gave a summary of a paper brought before the last meeting of the British Association. By an inadvertence, the authorship of this paper was assigned to the reader of it, instead of to the late Mr Edward Case, of Victoria Street, Westminster, to whom its conception was wholly due.

## MANXLAND IN WINTER.

**I**T was my good fortune, several years ago, to spend a month in Manxland; and that not a summer month, but the dull and dreary November, when so many of us seek the south of France in the hope of escaping the fogs and frosts, wind and rain, of early winter.

Previous to that visit I knew nothing of the island except on the map of England. I remember that, in the far-back days of childhood and geography lessons, its name and its place were impressed on my mind by being told that the cats of Manxland never possessed any tail.

With this very scanty information still retained during the flight of years, I packed my trunk in readiness to accompany a friend who was annually advised to try a mild and equable winter climate. She was weary of the favourite resorts on the coasts of the Mediterranean, and had resolved so firmly upon a stay in the Isle of Man that no contrary advice could turn her from her purpose.

The weather favoured our journey; the little sea-voyage from Liverpool was quite a pleasure; and as we neared Douglas we began to understand how the Manxman grows enthusiastic in praise of that town. Like a picture was the view of the busy port, the rugged coast-line, and the long chain of mountains filling up the background. A good boarding-house had been already recommended to us, where, for the modest charge of five shillings and sixpence per day we should be well fed and cared for. It is a pleasure to be able to say that we received even more attention and enjoyed more quiet comfort than we had hoped for; and, so far as I could see or hear, the accommodation in Douglas—and also in other of the island towns—is super-excellent. In some English pleasure and health resorts the motto of the landlady seems to be: 'If you don't like it, you may leave it.' In Manxland there is an evident wish to please and satisfy, which ought to win the heart of all visitors.

We heard a great deal concerning the varied amusements of the bright, brief Douglas 'season,'

which we had missed. Always something going on—so ran the narrative—concerts, excursions, balls, variety entertainments; and after church-time on Sunday evenings a performance of sacred music in one or other of the large pavilions built expressly for such gatherings. We agreed that it might be well to visit Douglas some year during its gay time; but we were quite satisfied with it as it was upon that 1st November when we arrived in the island.

I do not think it was an exceptionally mild year. I remember distinctly the letters that came to us from friends here and there complaining of the 'wretched weather we are having.' But I know we could enjoy the walks round about Douglas, the trips into the interior of the island, and the clear view on many a day from Douglas Head of the mountains of Cumberland or those of North Wales. I hope that I may be believed, too, when I say that, at any rate in the first weeks of the November of which I am telling, we were eating strawberries, green peas, and beans as though the month were June. As a matter of fact the mean annual temperature is returned as—spring, 40·1; summer, 57·1; autumn, 51·2; winter, 42·6—an annual mean of 49·2.

We went off for three days to Ramsey, the principal town of the northern district, with sheltering mountains rising behind it like a wall. The old town is in the neighbourhood of the harbour; the modern part has sprung into being in recent years. Ramsey has a name for sea-bathing, boating, and fishing in its holiday season. The shore is of fine sand and small gravel, which, combined with the shallowness of the water, makes bathing as safe as it can be. Sailing-boats are always ready at moderate charges for excursions, and small rowing-boats abound for inshore amusement. The rambles round and about Ramsey are charming; when we visited Elfin Glen, Glen Mona, and other of these Manx valleys we began to talk of a summer visit with a party of friends, and such a perfect picnic that it should never be forgotten!

For another three days' visit we went to Peel—the railway making such outings so easy and so inexpensive from our headquarters at Douglas. Greeba Castle, the residence of Hall Caine, is in the neighbourhood of Peel.

In olden times Peel was a place of much more importance than it is now. Lying just opposite to the Irish coast, it was carefully fortified as far back as the ninth century, and such fortifications survive in the venerable ruins of to-day. Peel Castle is a rocky islet of about five acres, separated by the sea from the mainland, yet now connected with it by the south quay of Peel Harbour, and surrounded by an embattled wall flanked at intervals by towers. Within this enclosed islet there was enough accommodation for a strong garrison and a suitable residence for the king or his representative. These buildings have disappeared, except a small part assigned to the soldiers on duty. Upon the eastern side of this islet is the ruined cathedral of St Germain. It has greatly suffered by the lapse of centuries, but has been preserved from falling into absolute ruin. The crypt was used as a prison for State offenders; Thomas, Earl of Warwick, was confined there in 1397, and Eleanor, Duchess of Gloucester, in 1446.

The narrow winding streets of the town of Peel and its ancient buildings will interest all lovers of the past; those who prefer modern places will appreciate the promenade, the golf-links, and the suitability of the country roads for cycling.

Castletown, in the south of the island, is a very pretty little place, with narrow, old streets and irregularly built houses; but its suburbs are more modern, and are beginning to attract the better and quieter class of visitors. Castle Rushen is the chief attraction; the exact date of its erection is unknown, but it apparently belongs to the thirteenth century. The main body of the castle is a square keep, with towers upon its four sides. Here was the residence of the kings of Man, and afterwards of the Governors; and parliamentary assemblies used to be held in the castle.

About a mile from Castletown stands King William's College, the opening of which in 1833 carried out a proposal of the great Earl of Derby, made in 1643, for a 'university without much charge, which may much oblige the nations round about us. It may get friends into the country, and enrich this land. This would certainly please God and man.' The confusion of Manx affairs at the time, and the Earl's death, prevented this being carried out until our own times. The College can accommodate a hundred boarders, and the Principal is assisted by fourteen resident masters. The fees are much more moderate than those of any educational establishment of similar standing in England. It may be mentioned that the eminent Churchman and author, Dean Farrar, was partly educated at King William's College, Isle of Man.

The village of Port St Mary is the centre of

the Manx fishing industry; it is within easy distance of the Sugar-Loaf Rock, the Sound and Calf of Man, Bradda Head, and other places which ought to be visited by all who want to know the island thoroughly.

Port Erin is a fast-growing watering-place, with pleasant inland walks on the mountains; its charms during the summer season we had, of course—like those of other places—to learn by hearsay; but even in November we thoroughly enjoyed our brief stay.

More than one hundred and twenty thousand visitors come to the Isle of Man in an average season, a Bank-holiday alone sometimes adding twelve thousand to the population. An important step in popularising this holiday resort was taken when an electric tramway company completed the line along the cliffs, now giving the quickest connection between Douglas and Ramsey. This is a much nearer and more direct route than either by sea or by rail, the eighteen miles being covered on the opening day in little over an hour. The route commands an exquisite sea-view, at one part rising six hundred feet above sea-level, and also affording glimpses of the valleys as these are crossed. There are three power-generating stations, one at Douglas, another at Laxey, a third half-way between that place and Ramsey. From Laxey, Snaefell (the highest hill in the island) may be ascended by means of the electric tramway. Thus Manxland boasts of what is probably the longest electric tramway in the United Kingdom.

## THE CHANGING SKIES.

A SONNET.

FORM follows cloudy form across the sky:  
In crystal seas float islands of delight;  
Grand turrets seem to guard yon mountain's height;  
Lo! there the folded flocks of evening lie;  
Here rosy billows heave, and, breaking, sigh;  
Archangels meet, and clash their sabres bright;  
See! scarlet squadrons marshal in the night;  
Pale wanderers' lamps the midnight glorify.

In my life's sky dream follows dream of thee:  
The wild majestic pageant passes on—  
Abodes, defences, warriors, herds, fair seas.  
Moods come and go: shape thou my destiny,  
Thou who remain'st when all the dreams are gone—  
My home, my strength, my glory, and my peace!  
ELIZABETH GIBSON.

## \* \* TO CONTRIBUTORS.

- 1st. All communications should be addressed 'To the Editor, 339 High Street, Edinburgh.'
- 2d. For its return in case of ineligibility, postage-stamps should accompany every manuscript.
- 3d. To secure their safe return if ineligible, ALL MANUSCRIPTS, whether accompanied by a letter of advice or otherwise, should have the writer's Name and Address written upon them in FULL.
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